

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: JAN 31 2009

SUBJECT: Removal Site Evaluation for Patterson Road - Eastern Side, Jackson Township, Ocean County, New Jersey (CERCLIS ID No. NJN000204541)

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Removal Action Branch

TO: File

Introduction

The United States Environmental Protection Agency (EPA), Removal Action Branch has been requested to conduct a Removal Site Evaluation (RSE) at Patterson Road - Eastern Side, a site where no further remedial action is planned (NFRAP). The NFRAP determination signifies that no additional remedial steps will be taken to list the Site on the National Priorities List unless new information warranting further Superfund consideration or conditions not previously known to EPA regarding the Site are disclosed. As of February 2, 2005, EPA had determined that no further remedial action was warranted by the Federal Superfund program at Patterson Road - Eastern Side.

Site Description and Background

Patterson Road - Eastern Side (Site) is located on the east side of Patterson Road, near its intersection with Route 526, in Jackson Township, Ocean County, New Jersey. It consists of approximately 16.7 acres (Block 152.01, Lots 1.03, 1.04, and 1.05) that have been used as a sand quarry since approximately 1970. Presently, the sand quarry is utilized sporadically. The property is bound to the north by a nursery, to the east by wetlands, to the south by New Jersey Iron, Inc., and to the west by Patterson Road. An unnamed tributary leading to the South Branch of the Metedeconk River is located on the east side of the Site. The land on the west side of Patterson Road is wetland, listed in CERCLIS as the Patterson Road Dump Site (NJD981179039), and referred for NFRAP in May 15, 2003.

Illegal dumping was reported to have occurred at both of these locations between 1976 and 1981. As part of an investigation conducted in 1984 for the disposal of chemical wastes, the Essex County Prosecutor's office determined that the defendants had disposed of 200, 55-gallon drums of chemicals in the cellar of an abandoned house on the east side of Patterson Road.

The residence has since burned down and was demolished. The defendants were uncertain as to whether or not the drums were removed prior to the demolition. The defendants also recalled dumping approximately 200 to 300, 5,500-gallon trailer loads of pesticides and acids directly onto the ground on the west side of Patterson Road.

The NJDEP conducted an investigation in 1984, and while they identified several areas of concern on both sides of the road, no indicators of chemical waste disposal were observed. In 1985, the NJDEP led an investigation to locate the building. The foundation of the home was uncovered and fire debris was present. It was concluded that all fire rubble, possibly including the drums, was removed to a landfill after the fire before the basement was backfilled.

Due to the presence of private potable wells in the area, the NJDEP installed and sampled 16 groundwater monitoring wells in the area between 1986 and 1988. Low levels of volatile organics (VOCs), semi-volatile organics, pesticides, and metals were detected in some of the monitoring wells. The higher concentrations were detected in the monitoring wells at the Site. In 1988, the NJDEP collected soil samples and detected low levels of VOCs. The NJDEP issued an Administrative Order on Consent in 1993 to the owner of the Patterson Road Dump Site for its remediation, who in turn alleged the actual source to be the Site. The Order was rescinded several months later. Additional sampling was conducted in subsequent years, including in August 2002 by the EPA Region II Site Assessment Team (SAT). Low levels of pesticides were identified in the subsurface soils however; no release to the surface water was documented.

In June 2004, Region II SAT conducted a Preliminary Assessment at the Site. It was concluded that since the quarry was actively being used that no residual soil contamination was expected to be found. Based on the ground water samples that were collected in an Expanded Site Inspection (ESI) conducted at the Patterson Road Dump Site in 2002, where VOCs and metals were detected below NJDEP groundwater quality criteria, it was concluded that a site-attributable release to the environment was not likely.

The closest residences to the Site are situated south and west of the intersection of Patterson Road and Route 526. Approximately 14 persons live within a quarter mile of the Site and an estimated 735 persons live within one mile of the Site. The Site lies on an outcrop of the Kirkwood-Cohansey Formation. Water supplies are drawn from the Cohansey Sand and the Vincetown Aquifer. The depth to groundwater at the Site is approximately eight feet. The nearest down-gradient well is a private domestic well located approximately 1.15 miles from the Site and has a depth of 45 feet. An estimated 529 persons use potable wells within two miles of the Site.

Site assessment activities/observations

The Pre-Remedial site files, which included a Preliminary Assessment Report (September 2004), was reviewed as part of this Removal Site Evaluation. A site reconnaissance was conducted by the Removal Action Branch on June 4, 2008. Patterson Road near the Site is a quiet, secluded roadway situated between Interstate Highway 195 and Route 526. The area to the west of Patterson Road is heavily wooded and vegetated. Trails into the woods are evident at several locations. The sand quarry did not appear to be active at the time of the reconnaissance. South

of New Jersey Iron, Inc. the area is also heavily wooded and vegetated, and is dotted with trails. The area appears relatively similar to when a site reconnaissance was previously conducted by the Removal Action Branch in October 2000. The New Jersey Iron facility was being constructed during this visit. At that time, interviews were conducted with local and county officials to ascertain the past activities at the Site. Potable well information and analytical data from local records were reviewed. Although a Removal Site Evaluation document was not completed, it was determined that the Site did not warrant a removal action since a specific area of impact could not be ascertained and no potable wells were being impacted above Removal Action Levels.

Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

NJDEP groundwater sampling results from monitoring wells on both sides of Patterson Road from 1986 through 1989 identified elevated levels of carbon disulfide (2 µg/l), 1,1,1-trichloroethane (3.8 µg/l), trichloroethylene (11 µg/l), benzene (14 µg/l), tetrachloroethene (5.4 µg/l), toluene (2.9 µg/l), ethylbenzene (18 µg/l), xylene (34 µg/l), 4-chloro-3-methylphenol (1.3 µg/l), bis(2-ethylhexyl)phthalate (390 µg/l), delta-BHC, gamma-BHC, heptachlor, endrin, chlordane, antimony (50 µg/l), chromium (153 µg/l), mercury (0.5 µg/l), and zinc (167 µg/l).

In August/September 1988, the NJDEP collected soil samples in the Patterson Road area. While ethylbenzene, toluene, acetone, carbon disulfide, 2-hexanone, xylene, methylene chloride, benzene, tetrachloroethene, and 1,1-dichloroethene were detected, none of the concentrations were greater than three times background concentration or in excess of NJDEP soil cleanup criteria at the time.

In August 2002, the Region II SAT collected samples from both sides of Patterson Road as part of an ESI for the Patterson Road Dump Site. Groundwater samples from the Site revealed the presence of VOCs and heavy metals reportedly below NJDEP Groundwater Cleanup Criteria. Pesticides were not detected in any of the monitoring wells in the Patterson Road area.

Threats to Public Health or Welfare

While CERCLA hazardous substances have been released at the Site in the past, the most recent samples collected from the Site and the adjoining areas do not indicate that concentrations are above NJDEP criteria and that it can be attributed to the Site. There does not appear to be a significant threat to human health that would warrant a removal action.

Threats to the Environment

At this time there is no documentation to indicate that the Site is currently having an acute impact to any sensitive environments or natural resources.

Conclusions

It is reported that CERCLA hazardous substances have been released in the past into the soil at the Site however, based on the available information the Site does not warrant a CERCLA removal action at this time.